

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the present application:

Listing of Claims:

1. (Currently Amended) **[[A]]** An isolated or purified gene coding for either one of the following proteins (a) or (b):

(a) a protein consisting of the amino acid sequence shown in SEQ ID NO:2; or

(b) a protein consisting of an amino acid sequence ~~shown in SEQ ID NO:2~~ wherein said amino acid sequence is obtained by deletion, substitution or addition of one or more amino ~~[[acids,]]~~ acids in SEQ. ID. NO.:2, wherein the amino acid at position 75 is methionine, and wherein said protein has ~~which exhibits~~ scytalone dehydratase activity in the presence of a scytalone dehydratase inhibitor.

2. (Currently Amended) **[[A]]** The gene according to claim 1, wherein the scytalone dehydratase inhibitor inhibits the dehydration reaction from scytalone to 1,3,8-trihydroxynaphthalene in a melanin biosynthesis pathway.

3. (Currently Amended) **[[A]]** The gene according to claim 1, wherein the scytalone dehydratase inhibitor is carpropamid.

4. (Withdrawn) A scytalone dehydratase encoded by the gene of claim 1.

5. **(Currently Amended)** A recombinant vector comprising ~~the gene of claim 1~~, a gene coding for either one of the following proteins (a) or (b):

(a) a protein consisting of the amino acid sequence shown in SEQ ID NO:2; or

(b) a protein consisting of an amino acid sequence wherein said amino acid sequence is obtained by deletion, substitution or addition of one or more amino acids in SEQ. ID. NO.:2, wherein the amino acid at position 75 is methionine, and wherein said protein has scytalone dehydratase activity in the presence of a scytalone dehydratase inhibitor.

6. **(Currently Amended)** A transformant obtained by transformation ~~[[of]]~~ with the recombinant vector of claim 5.

7. **(Withdrawn)** A method for assessing sensitivity of a rice blast fungus to a scytalone dehydratase inhibitor, comprising the steps of:

(a) identifying an amino acid in an amino acid sequence of scytalone dehydratase in a subject rice blast fungus, which corresponds to valine at position 75 in the amino acid sequence shown in SEQ ID NO: 4; and

(b) assessing sensitivity of the subject rice blast fungus to the scytalone dehydratase inhibitor based on the results of step (a).

8. **(Withdrawn)** A method for assessing sensitivity according to claim 7, wherein when the amino acid identified in step (a) is methionine, the sensitivity of the subject rice blast fungus

to the scytalone dehydratase inhibitor is assessed to be lower than that of a wild-type rice blast fungus in step (b).

9. **(Withdrawn)** A kit for screening an inhibitor, comprising the scytalone dehydratase of claim 4.

10. **(Currently Amended)** A kit for assessing a rice blast fungus resistant to a scytalone dehydratase inhibitor, said kit comprising a pair of primers designed to flank a nucleotide sequence coding for an amino acid corresponding to valine at position 75 in the amino acid sequence shown in SEQ ID NO: 4.

11. **(Currently Amended)** A kit for assessing a rice blast fungus resistant to a scytalone dehydratase inhibitor, said kit comprising an oligonucleotide including a nucleotide sequence coding for an amino acid corresponding to valine at position 75 in the amino acid sequence shown in SEQ ID NO: 4.

12. **(New)** An isolated or purified gene coding for a protein comprising of the amino acid sequence shown in SEQ ID NO:2.

13. **(New)** The isolated or purified gene of claim 12, wherein the protein consists of SEQ ID NO:2.

14. (New) The gene according to claim 1, wherein the gene codes for protein (b) and hybridizes to a nucleotide sequence complementary to the nucleotide sequence of SEQ. ID. NO.:1 under stringent conditions.

15. (New) The gene according to claim 14, wherein the stringent conditions include a sodium concentration of 10-300 mM and a temperature of 25-70°C.

16. (New) The gene according to claim 14, wherein the stringent conditions include a sodium concentration of 20-100 mM and a temperature of 42-55°C.

17. (New) A recombinant vector comprising a gene coding for a protein comprising of the amino acid sequence shown in SEQ ID NO:2.

18. (New) A transformant obtained by transformation with the recombinant vector of claim 17.

19. (New) An isolated or purified gene coding for a protein consisting of an amino acid sequence wherein said amino acid sequence is obtained by deletion, substitution or addition of 1-30 amino acids in SEQ. ID. NO.:2, wherein the amino acid at position 75 is methionine, and wherein said protein has scytalone dehydratase activity in the presence of a scytalone dehydratase inhibitor.

20. (New) The gene of claim 19, which contains 1-20 of said deletions, substitutions or additions.

21. (New) The gene of claim 19, which contains 1-10 of said deletions, substitutions or additions.